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PATENT APPLICATION

ATTORNEY DOCKET NO. COMP:0144-3

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Theodore F. Emerson et al.	**Confirmation No.:** 5291
Application No.: 10/716,144	**Examiner:** Shin, Christopher B.
Filing Date: November 18, 2003	**Group Art Unit:** 2181

Title: METHOD FOR CONTROLLING REMOTE CONSOLE FUNCTIONALITY ASSIST LOGIC

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TRANSMITTAL OF APPEAL BRIEF

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on September 11, 2007.

☒ The fee for filing this Appeal Brief is $510.00 (37 CFR 41.20).

☐ No Additional Fee Required.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

☐ (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d)) for the total number of months checked below:

☐ 1st Month $120	☐ 2nd Month $460	☐ 3rd Month $1050	☐ 4th Month $1640

☐ The extension fee has already been filed in this application.

☒ (b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account 08-2025 the sum of $ 510. At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Theodore F. Emerson et al.	§	Confirmation No.: 5291
	§	
	§	Group Art Unit: 2181
Serial No.: 10/716,144	§	
	§	Examiner: Shin, Christopher B.
Filed: November 18, 2003	§	
	§	
For: METHOD FOR CONTROLLING REMOTE CONSOLE FUNCTIONALITY ASSIST LOGIC	§	Atty. Docket: 200304250-6 COMP:0144-3(FLE/DOO)

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November 09, 2007 — Katey Hines
Date

APPEAL BRIEF PURSUANT TO 37 C.F.R. §§ 41.31 AND 41.37

This Appeal Brief is being filed in furtherance to the Notice of Appeal mailed on September 6, 2007, and received by the Patent Office on September 11, 2007.

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1. REAL PARTY IN INTEREST

The real party in interest is Hewlett-Packard Development Company, the Assignee of the above-referenced application by virtue of the Assignment recorded at reel 017072, frame 0352, on January 26, 2006. Accordingly, Hewlett-Packard Development Company will be directly affected by the Board's decision in the pending appeal.

2. RELATED APPEALS AND INTERFERENCES

Appellants are unaware of any other appeals or interferences related to this Appeal. The undersigned is Appellants' legal representative in this Appeal.

3. STATUS OF CLAIMS

Claims 1, 3, 5, 7, 9, 14, 16, 21, 23, 25, 30, 33, 38, 40, 45, 47, and 49 are currently pending. Claims 2, 4, 6, 8, 10-13, 15, 17-20, 22, 24, 26-29, 31, 32, 34-37, 39, 41-44, 46, 48, and 50 are currently withdrawn. Claims 1, 3, 5, 7, 9, 14, 16, 21, 23, 25, 30, 33, 38, 40, 45, 47, and 49 are currently under final rejection and, thus, are the subject of this Appeal.

4. STATUS OF AMENDMENTS

There are no outstanding amendments to be considered by the Board.

5. SUMMARY OF CLAIMED SUBJECT MATTER

The application includes nine independent claims, namely, claims 1, 5, 9, 16, 23, 30, 33, 40, and 47, all of which are the subject of this Appeal. The subject matter of these claims is summarized below.

Claims 1, 5, 9, 16, 23, 30, 33, 40, and 47 relate to devices and techniques involved in remotely managing server computer systems. *See* Application, page 10, lines 5-13. In the field of remotely managed server computer systems, remote console functionality assist logic generally allows a user to access the server from a remote computer as if the user were at the server. *See id.*, page 6, lines 2-9. Remote console functionality assist logic provides remote access to a server in the event of a failure, when normal access to the server and internal diagnostic subsystems would remain otherwise inaccessible. *See id.*, page 5, line 13 - page 6, line 1. Remotely managing a server computer system using such logic thus *does not require the server computer system to be functioning properly* to gain remote access to the server; in fact, a particularly acute need for remote access arises *because of* malfunction. *See id.*, page 6, lines 16-23.

With regard to independent claim 1, discussions of the recited features of claim 1 can be found at least in the below cited locations of the specification and drawings. Claim 1 generally relates to a system for accessing a computer system from a remote location. By way of example, present embodiments include an expansion slot (e.g. 326), a bus interconnected with the expansion slot (e.g. 306), and an expansion board (e.g. 328)

comprising a processor (e.g. 330) disposed in the expansion slot. *See* Application, page 10, lines 9-11. Further, present embodiments include a remote console functionality assist logic structure (e.g. 208) controlled by the processor (e.g. Application, page 17, lines 11-13) to provide signals generated by the managed computer system to a remote computer system (e.g. Application, page 19, lines 9-23) and configured to operate independently of a central processing unit (CPU) of the managed computer system (e.g. Application, page 18, line 17 – page 19, line 8), which overcomes the prior art disadvantage of the managed device processor having to operate properly for remote access to occur. *See* Application, page 8, lines 17-22.

With regard to independent claim 5, discussions of the recited features of claim 5 can be found at least in the below cited locations of the specification and drawings. By way of example, present embodiments include an Input/Output (I/O) processor (e.g. 212) disposed on a bus (e.g. 206) and a video controller disposed on the bus (e.g. 116). Present embodiments also include a remote console functionality assist logic structure (e.g. 208) disposed on the bus and configured to operate notwithstanding whether a central processing unit (CPU) of the managed computer system malfunctions (e.g. Application, page 18, line 17 – page 19, line 8), which overcomes the prior art disadvantage of the managed device processor having to operate properly for remote access to occur. *See* Application, page 8, lines 17-22. Further, present embodiments include the structure being controlled by the processor (e.g. Application, page 17, lines

11-13) to provide video signals of the video controller to a remote computer system (e.g. Application, page 19, lines 9-23).

With regard to independent claim 9, discussions of the recited features of claim 9 can be found at least in the below cited locations of the specification and drawings. By way of example, present embodiments include an expansion slot (e.g. expansion slot 326), a bus adapted to connect a plurality of devices and the expansion slot (e.g. bus 306), and an add-in board (e.g. 328) disposed in the expansion slot. The add-in board includes an on-board processor (e.g. 330). *See* Application, page 10, lines 9-11. Present embodiments also include a remote server console device (e.g. 208) adapted to communicate on the bus without diverting resources from a system processor of the managed computer system (e.g. Application, page 18, line 17 – page 19, line 8), the remote server console device having a remote console functionality assist logic structure (e.g. 230, 236) controlled by the on-board processor (e.g. Application, page 17, lines 11-13).

With regard to independent claim 16, discussions of the recited features of claim 16 can be found at least in the below cited locations of the specification and drawings. By way of example, present embodiments include a remote server management control system (e.g. 208) for a computer system (e.g. 200), the computer system comprising a bus (e.g. 306) adapted to connect a plurality of devices (e.g. 308, 310) and an expansion slot (e.g. 326). Present embodiments also include an add-in board disposed in the

expansion slot (e.g. 328), the add-in board comprising a processor (e.g. 330) and a remote server console device (e.g. 208) adapted to communicate on the bus. Further present embodiments include a remote console functionality assist logic structure controlled by the processor (e.g. Application, page 17, lines 11-13) and configured to operate independently of a central processing unit (CPU) of the computer system (e.g. Application, page 18, line 17 – page 19, line 8).

With regard to independent claim 23, discussions of the recited features of claim 23 can be found at least in the below cited locations of the specification and drawings. By way of example, present embodiments include a system processor operably coupled to an Input/Output (I/O) bus (e.g. 212), a video controller (e.g. 116) disposed on the bus to provide video signals to the remotely managed computer system, and a remote console functionality assist logic structure (e.g. 208) disposed on the bus and adapted to capture the video signals of the video controller and direct video information to a remote computer system (Application, page 19, lines 9-16), notwithstanding whether a system processor of the remotely managed computer system is functioning properly (e.g. Application, page 18, line 17 – page 19, line 8).

With regard to independent claim 30, discussions of the recited features of claim 30 can be found at least in the below cited locations of the specification and drawings. By way of example, present embodiments include establishing a connection between the computer system and a remote terminal (e.g. Application, page 16, lines 9-17) and

controlling a remote console functionality assist logic structure with an Input/Output processor (e.g. Application, page 17, lines 11-13). Present embodiments also include the remote console functionality assist logic structure being associated with the computer system and configured to operate without regard to whether a central processing unit (CPU) of the computer system is malfunctioning (e.g. Application, page 18, line 17 – page 19, line 8).

With regard to independent claim 33, discussions of the recited features of claim 33 can be found at least in the below cited locations of the specification and drawings. By way of example, present embodiments include a method of providing remote console functionality assist logic in a computer system (e.g. Application, page 11, lines 16-18), wherein the computer system comprises a bus (e.g. 306) that is adapted to connect a plurality of devices (e.g. 308, 310) and an expansion slot (e.g. 326). Present embodiments also include providing the computer system with an add-in board (e.g. 328) disposed in the expansion slot, the add-in board comprising a processor (e.g. 330) configured to operate independently of a central processing unit (CPU) of the computer system (e.g. Application, page 18, line 17 – page 19, line 8), as well as providing the computer system with a remote server console device (e.g. 208) adapted to communicate on the bus, the remote server console device comprising a remote console functionality assist logic structure (e.g. 230, 236), wherein the operation of the remote server console device is controlled by the processor (e.g. Application, page 17, lines 11-13).

With regard to independent claim 40, discussions of the recited features of claim 40 can be found at least in the below cited locations of the specification and drawings. By way of example, present embodiments include a method of providing remote server management control functionality in a computer system (e.g. Application, page 11, lines 18-20) including providing the computer system with a remote console functionality assist logic structure (e.g. 208) adapted to monitor activities in the computer system and provide data to a remote user (e.g. Application, page 19, lines 9-23). Present embodiments also include providing a processor (e.g. 330) contained on an add-in board (e.g. 328) mounted in an expansion slot (e.g. 326) on a communication bus (e.g. 306) in the computer system (e.g. 300) to control the remote console functionality assist logic (e.g. Application, page 17, lines 11-13).

With regard to independent claim 47, discussions of the recited features of claim 47 can be found at least in the below cited locations of the specification and drawings. By way of example, present embodiments include a method of transmitting video data between a remotely managed computer system and a remote computer system (e.g. Application, page 19, lines 9-23) by using a remote console functionality assist logic structure (e.g. 208) disposed on a bus (e.g. 206) and controlled by an Input/Output processor (e.g. 212) configured to operate independently of a central processing unit (CPU) of the remotely managed computer system (e.g. Application, page 18, line 17 – page 19, line 8) to provide video signals of a video controller of the remotely managed computer system to the remote computer system (e.g. Application, page 19, lines 9-23).

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

First Ground of Rejection for Review on Appeal:

Appellants respectfully urge the Board to review and reverse the Examiner's first ground of rejection in which the Examiner rejected claims 1, 3, 5, 7, 9, 14, 16, 21, 23, 25, 30, 33, 38, 40, 45, 47, and 49 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Second Ground of Rejection for Review on Appeal

Appellants respectfully urge the Board to review and reverse the Examiner's second ground of rejection in which the Examiner rejected claims 1, 3, 5, 7, 9, 14, 16, 21, 23, 25, 30, 33, 38, 40, 45, 47, and 49 under 35 U.S.C. § 103(a) as being unpatentable over Youngblood et al. (U.S. Pat. No. 5,062,059, hereinafter "Youngblood") in combination with Official Notice.

7. ARGUMENT

As discussed in detail below, the Examiner has improperly rejected the pending claims. Further, the Examiner has misapplied long-standing and binding legal precedents and principles in rejecting the claims under Sections 112 and 103. Accordingly, Appellants respectfully request full and favorable consideration by the Board, as

Appellants respectfully assert that claims 1, 3, 5, 7, 9, 14, 16, 21, 23, 25, 30, 33, 38, 40, 45, 47, and 49 are currently in condition for allowance.

A. **Ground of Rejection No. 1:**

With respect to the Examiner's rejection of claims 1-4, 6-13, 15-19, 40-43 and 45-48 under 35 U.S.C. § 112, second paragraph, the Examiner stated the following:

> a. In claim l;
>
> The added phrase "configured to operate independently of a central processing unit (CPU) of the managed computer system" adds too many ambiguities and confusion to the claimed invention as follows:
>
> Firstly, it is unclear as to what is operating independently of the CPU of the managed computer system (i.e., remote computer system, remote console, managed computer system, board processor).
>
> Secondly, how does the CPU of the managed computer system structurally and functionally inter-coupled to the managed computer system?
>
> Thirdly, it appears that none of the claimed limitations (i.e., a managed computer system, an expansion slot, a bus, a remote console functionality logic structure, etc) have anything to do with the CPU of the managed computer system in the first place. In other words, none of the claimed limitations (i.e., before this amendment) had any dependency upon the CPU that was never a part of the system in terms performing any claimed function.
>
> Fourthly, it is unclear as to whether the CPU is part of the claimed managed system in terms of providing any function, because the amended portions of the claims (lines 9-10) contradicts the before amended claims. For example, it appears that the processor of the board (a part of the managed computer) controls the logic, but the CPU of the managed computer (also a part of the managed computer) does not control the managed system. For the above reasons, the added limitations of lines 9-10 are not utilized

by the claimed system, nor contribute any function to the claimed system. Furthermore, the amendment does not further limit the claimed invention in terms of operation and function. To make a point, it appears that the amended "CPU" is not any different than apiece of unused wire or dust in the managed system; they both do not contribute any function to the claimed system.

For the above reasons, the examiner cannot determine the metes and bounds of the claimed invention, due to many different possible interpretations of the claimed invention.

The above unclarities are similarly applied to the rest of the amended claims.

b. In claim 5;

The added phrase "configured to operate notwithstanding whether a CPU of the managed computer system malfunctions" adds too many ambiguities and confusion to the claimed invention as follows:

Firstly, how does the CPU of the managed system structurally and functionally inter-coupled to the management computer system? What functions or operations do the CPU provides to the managed system when the CPU does not malfunction?

Secondly, from the context of the claim 5, it appears that none of the claimed limitations (i.e., a managed computer system, I/O processor, video controller, a bus, remote console functionality logic structure, etc) have anything to do with the CPU of the managed computer system in the first place. In other words, none of the claimed limitations (i.e., before this amendment) had any thing to do with the malfunctioning of the CPU.

Thirdly, it is unclear as to whether the CPU is part of the claimed managed system in terms of providing any function, because the amended portions of the claims (lines 9-10) contradicts the before amended claims. For example, it appears that the processor of the board (a part of the managed computer) controls the logic, but the CPU of the managed computer (also a part of the managed computer)

does not control the managed system. For the above reasons, the added limitations of lines 5-6 are not utilized by the claimed system, nor contribute any function to the claimed system. Furthermore, the amendment does not further limit the claimed invention in terms of operation and function. To make a point, it appears that the amended "CPU" is not any different than apiece of unused wire or dust in the managed system; they both do not contribute any function to the claimed system; in addition, the claimed managed system properly operates even when the CPU malfunctions.

For the above reasons, the examiner cannot determine the metes and bounds of the claimed invention, due to many different possible interpretations of the claimed invention.

The above unclarities are similarly applied to the rest of the amended claims.

c. In claim 9;

The added phrase "with diverting resources from a system processor of the managed computer system" adds too many ambiguities and confusion to the claimed invention as follows:

Firstly, how does the system processor of the managed computer system structurally and functionally inter-coupled to the management computer system in terms of having any relationship with the resources? What functions or operations do the system processor provides to the managed system in terms of affecting resources of the system.

Secondly, from the context of the claim 9, it is unclear as to whether the system processor is connected to the bus. If not, the above limitations do not further limit the previous claimed invention; if so, the claimed limitation do not further limit from the claimed invention, since the amended claim 9 still do not provide any functional or structural relationship to support diverting or without diverting resource limitation.

> Thirdly, similar to claims 1 and 5, the added "system processor" does not have anything to do with the claimed limitations (i.e., claim 9 does not provide any hint or explanation as to how the system processor is functionally or structurally interconnected to the bus); therefore, it is unclear as to how the added limitations is accomplished (i.e., the examiner has to rely on the common knowledge or guess what the applicant is trying to claim). In addition, the added limitation is not utilized by the claimed system.
>
> To make a point, it appears that the amended "system processor" is not any different or further limiting than apiece of unused wire or dust in the managed system; they both do not contribute any function to the claimed system.
>
> For the above reasons, the examiner cannot determine the metes and bounds of the claimed invention, due to many different possible interpretations of the claimed invention.
>
> The above unclarities are similarly applied to the rest of the amended claims.
>
> d. Claims 16, 23, 30, 33, 40 & 47;
>
> As for the rest of the independent claims 16, 23, 30, 33, 40 & 47, the unclarities of the claims 1, 5 & 9 are similarly applied; the nature of the unclarities of the above independent claims are substantially identical.
>
> Final Office Action, pp. 2-6

Appellants respectfully traverse the rejection. The Examiner's focus during examination of claims for compliance with the requirement for definiteness under 35 U.S.C. § 112, second paragraph, should be whether the claim meets the threshold requirements of clarity and precision, not whether more suitable language or modes of expression are available. *See* M.P.E.P. § 2173.02. The applicant may use functional language, alternative expressions, negative limitations, or any style of expression or

format of claim which makes clear the boundaries of the subject matter for which protection is sought. *See* M.P.E.P. §§ 2173.01 and 2173.05; *In re Swinehart*, 160 U.S.P.Q. 226, (C.C.P.A. 1971). The Examiner is also reminded not to equate breadth of a claim with indefiniteness. *In re Miller*, 169 U.S.P.Q 597 (C.C.P.A. 1971).

The essential inquiry pertaining to the definiteness requirement is whether the claims set out and circumscribe a particular subject matter with a reasonable degree of clarity and particularity. *See* M.P.E.P. § 2173.02. As set forth in Section 2173 of the Manual of Patent Examining Procedure, definiteness of claim language must be analyzed, not in a vacuum, but in light of:

(A) The content of the particular application disclosure;

(B) The teachings of the prior art; and

(C) The claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made.

In reviewing a claim for compliance with 35 U.S.C. § 112, second paragraph, the Examiner must consider the claim as a whole to determine whether the claim apprises one of ordinary skill in the art of its scope and, therefore, serves the notice function required by 35 U.S.C. § 112, second paragraph, by providing clear warning to others as to what constitutes infringement of the patent. *See Solomon v. Kimberly-Clark Corp.*, 55 U.S.P.Q.2d 1279, 1283 (Fed. Cir. 2000). Only when a claim remains insolubly ambiguous without a discernible meaning after all reasonable attempts at construction

must it be declared indefinite. *See Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 71 U.S.P.Q.2d 1081, 1089 (Fed. Cir. 2004). Accordingly, a claim term that is not used or defined in the specification is not indefinite if the meaning of the claim term is discernible. *See Bancorp Services, L.L.C. v. Hartford Life Ins. Co.*, 69 U.S.P.Q.2d 1996, 1999-2000 (Fed. Cir. 2004).

The phrase "configured to operate independently of a central processing unit (CPU) of the managed computer system" in claim 1 is clearly supported by the specification (e.g. Application, page 18, line 17 – page 19, line 8) and is unambiguous in view of the claim language. As for the Examiner's first concern, i.e., that it is unclear as to what is operating independently of the CPU of the managed computer system, the claims clearly state that the *remote console functionality assist logic structure* is configured to operate independently of the CPU of the managed system; this is directly supported by the claim language and described by at least page 18, line 17 – page 19, line 8 of the Application. Moreover, the specification provides that the managed system of the present invention is "expandable by virtue of a dedicated processor for controlling the remote console functionality assist logic" (Application, page 11, lines 7-9), thus indicating that the logic structure recited in claim 1 is capable of operating independently of the CPU.

As for the Examiner's second concern with respect to claim 1, i.e., how the CPU of the managed computer system is structurally and functionally inter-coupled to the

managed computer system, the management system is described in the specification as including a CPU coupled to the system logic block. Application, FIG.1, 102 and 108. However, as currently claimed, the remote console functionality assist logic structure is configured to function independently from the central (system) CPU. Application, FIG. 2, 202, 208, 212, and page 18, line 17 – page 19, line 8. Thus, as is clear from both the claim language and the specification, the remote console functionality assist logic structure and the CPU are both part of the managed system, but the logic structure functions independently of the CPU.

As for the Examiner's third concern with respect to claim 1, i.e., that none of the claimed limitations (i.e., a managed computer system, an expansion slot, a bus, a remote console functionality logic structure, etc) have anything to do with the CPU of the managed computer system, prior to the amendment adding remote console functionality logic structure independence from the CPU to claim 1, the logic structure as presented in the claim could have been read broadly to be operationally dependent upon the CPU. *See* Application, FIG. 1. In fact, the system of FIG. 1 includes a description of system processors controlling the remote console functionality assist logic. *See* Application, page 15, line 21 – page 16, line 2. Thus, prior to the amendment of claim 1, a broad reading of claim 1 was possible whereby at least the remote console functionality logic structure could operate dependent on the CPU of the managed system. The amendment of claim 1 to recite "configured to operate independently of a central processing unit

(CPU) of the managed computer system" was therefore proper to clarify the scope of the invention.

As for the Examiner's fourth concern with respect to claim 1, i.e., that it is unclear as to whether the CPU is part of the claimed managed system in terms of providing any function and it appears that the amended CPU is not any different than a piece of unused wire or dust in the managed system, the application describes the CPU (e.g. 102) as being conventional system processors in a server, which control, for example, the video controller (e.g. 116) and the remote console functionality assist logic (e.g. 108). *See* Application, page 15, line 21 – page 16, line 2. Claim 1, as amended prior to the Final Office Action, provides the additional element that that the *logic structure* is configured to operate independently of the CPU, *not* the system as a whole. *See* Application, page 18, line 17 – page 19, line 8. Thus, while the CPU of the managed computer may control the managed system as a whole, a second processor is provided so that the logic structure may be operated independently of the system CPU, thereby overcoming the prior art disadvantage requiring the managed device processor to operate properly for remote access to occur. *See* Application, page 8, lines 17-22. Therefore, for at least the reasons above, claim 1 is clearly supported by the specification and is unambiguous in view of the claim language.

Similarly, the phrase "configured to operate notwithstanding whether a CPU of the managed computer system malfunctions" in claim 5 is unambiguous in view of the

claim language. As for the Examiner's first concern with respect to claim 5, i.e., how the CPU of the managed computer system is structurally and functionally inter-coupled to the managed computer system, the management system is described in the specification as including a CPU coupled to the system logic block. Application, FIG.1, 102 and 108. However, as currently claimed, the remote console functionality assist logic structure is configured to operate notwithstanding whether a CPU of the managed computer system malfunctions. Application, FIG. 2, 202, 208, 212, and page 18, line 17 – page 19, line 8. Thus, as is clear from both the claim language and the specification, the remote console functionality assist logic structure and the CPU are both part of the managed system, but the logic structure functions independently of the CPU.

As for the Examiner's second concern with respect to claim 5, i.e., that none of the claimed limitations (i.e., a managed computer system, an expansion slot, a bus, a remote console functionality logic structure, etc) have anything to do with the CPU of the managed computer system, prior to the amendment adding operation of the logic structure notwithstanding whether a CPU of the managed computer system malfunctions, the logic structure as presented in the claim could have been read broadly to be operationally dependent upon the functioning of the CPU of the managed computer system. *See* Application, FIG. 1. In fact, the system of FIG. 1 includes a description of system processors controlling the remote console functionality assist logic, which could not be accomplished if the CPU malfunctioned. *See* Application, page 15, line 21 – page 16, line 2. Thus, prior to the amendment of claim 5, a broad reading of claim 5 was

possible whereby at least the remote console functionality logic structure could operate based on the functioning of the CPU of the managed system. The amendment of claim 5 to recite "configured to operate notwithstanding whether a central processing unit (CPU) of the managed computer system malfunctions" was therefore proper to clarify the scope of the invention.

As for the Examiner's third concern with respect to claim 5, i.e., that it is unclear as to whether the CPU is part of the claimed managed system in terms of providing any function and it appears that the amended CPU is not any different than a piece of unused wire or dust in the managed system, the application describes the CPU (e.g. 102) as being conventional system processors in a server, which control, for example, the video controller (e.g. 116) and the remote console functionality assist logic (e.g. 108). *See* Application, page 15, line 21 – page 16, line 2. Claim 5, as amended prior to the Final Office Action, provides the additional element that that the *logic structure* is configured to operate notwithstanding whether a CPU of the managed computer system malfunctions, *not* the system as a whole. *See* Application, page 18, line 17 – page 19, line 8. Thus, while the CPU of the managed computer may control the managed system as a whole, a second processor is provided so that the logic structure may be operated notwithstanding whether a CPU of the managed computer system malfunctions, thereby overcoming the prior art disadvantage requiring the managed device processor to operate properly for remote access to occur. *See* Application, page 8, lines 17-22. Therefore, for

at least the reasons above, claim 5 is clearly supported by the specification and is unambiguous in view of the claim language.

Furthermore, the phrase "without diverting resources from a system processor of the managed computer system" in claim 9 is unambiguous in view of the claim language. As for the Examiner's first concern with respect to claim 9, i.e., how the CPU of the managed computer system is structurally and functionally inter-coupled to the managed computer system, the management system is described in the specification as including a CPU coupled to the system logic block. Application, FIG.1, 102 and 108. However, as currently claimed, the remote console functionality assist logic structure is configured to function without diverting resources from a system processor of the managed computer system. Application, FIG. 2, 202, 208, 212, and page 18, line 17 – page 19, line 8. Thus, as is clear from both the claim language and the specification, the remote console functionality assist logic structure and the CPU are both part of the managed system, but the logic structure functions independently of the CPU.

As for the Examiner's second concern with respect to claim 9, i.e., that none of the claimed limitations (i.e., a managed computer system, an expansion slot, a bus, a remote console functionality logic structure, etc) have anything to do with the CPU of the managed computer system, prior to the amendment having a remote console functionality logic structure operate without diverting resources from a system processor of the managed computer system, the logic structure as presented in the claim could have been

read broadly to operate by diverting resources from a system processor of the managed computer system. *See* Application, FIG.1. In fact, the system of FIG. 1 includes a description of system processors controlling the remote console functionality assist logic, thus diverting resources from the system processor of the managed computer system. *See* Application, page 15, line 21 – page 16, line 2. Thus, prior to the amendment of claim 9, a broad reading of claim 9 was possible whereby at least the remote console functionality logic structure could operate by diverting resources from a system processor of the managed computer system. The amendment of claim 9 to recite "communicate on the bus without diverting resources from a system processor of the managed computer system" was therefore proper to clarify the scope of the invention.

As for the Examiner's third concern with respect to claim 9, i.e., that it is unclear as to whether the CPU is part of the claimed managed system in terms of providing any function and it appears that the amended CPU is not any different than a piece of unused wire or dust in the managed system, the application describes the CPU (e.g. 102) as being conventional system processors in a server, which control, for example, the video controller (e.g. 116) and the remote console functionality assist logic (e.g. 108). *See* Application, page 15, line 21 – page 16, line 2. Claim 9, as amended prior to the Final Office Action, provides the additional element that that the *logic structure* is configured to operate without diverting resources from a system processor of the managed computer system, *not* the system as a whole. *See* Application, page 18, line 17 – page 19, line 8. Thus, while the CPU of the managed computer may control the managed system as a

whole, a second processor is provided so that the logic structure may be operated without diverting resources from a system processor of the managed computer system, thereby overcoming the prior art disadvantage requiring the managed device processor to operate properly for remote access to occur. *See* Application, page 8, lines 17-22. Therefore, for at least the reasons above, claim 9 is clearly supported by the specification and is unambiguous in view of the claim language.

The aforementioned propositions sufficiently address all Section 112 concerns the Examiner may have had regarding independent claims 1, 5, and 9. Furthermore, since the Examiner did not independently reject claims 16, 23, 30, 33, 40, and 47 on separate grounds, but rather stated that "the nature of the unclarities of the above independent claims are substantially identical" for claims 16, 23, 30, 33, 40, and 47, Appellants extend the arguments presented with regard to claims 1, 5, and 9 to remaining independent claims 16, 23, 30, 33, 40, and 47. For at least the reasons set forth above, Appellants respectfully request the Board reverse the Examiner's rejection under 35 U.S.C. § 112, second paragraph, of independent claims 1, 5, 9, 16, 23, 30, 33, 40, and 47, as well as all claims depending therefrom.

B. **Ground of Rejection No. 2:**

With respect to the Examiner's rejection of claims 1, 3, 5, 7, 9, 14, 16, 21, 23, 25, 30, 33, 38, 40, 45, 47, and 49 under 35 U.S.C. § 103(a) as being unpatentable over the Youngblood reference in combination with Official Notice, the Examiner stated:

In figure 1 and the respective descriptive sections disclose the teachings of the claimed limitations as follows:

Claims 1, 3 Youngblood (figure 1):

a computer system, comprising System of figure 1;

a bus for interconnecting managed computer system with an expansion slot, (26) for interconnecting (HOST) with a connection with (1);

an expansion board comprising a processor the board disposed in the expansion slot; and comprising (8) connected to (26),

a remote console functionality assist logic structure controlled by the processor to provide video signal generated by the managed computer system to a remote computer system (1, 14) controlled by (8) to provide video signal generated by the (26) to (14, 23), wherein the remote console functionality assist logic structure comprises a video encoder for encoding video signals transmitted between a video controlled and a system processor associated with he managed computer system (1, 14) comprises (22) graphic controller - well known to have video encoder/decoder.

Claims 5, 7 Youngblood (figure 1):

a computer system, comprising System of figure 1;

an input/output (I/O) processor disposed on a bus 0 (1, 14);

a video controller disposed on the bus Obvious feature of HOST, since the HOST provides video to (22 & 23);
a remote console functionality assist logic structure disposed on the bus, (1, 14);

the structure controlled by the processor to provide video signals of the video controller to a remote computer system (1, 14) controlled by (8) to provide video signal generated by the (26) to (14, 23);

wherein the remote console functionality assist logic structure comprises a video encoder for encoding video signals of the video controlled (1, 14) comprises (22) graphic controller - well known to have video encoder/decoder.

Claims 9, 14 Youngblood (figure 1):

a computer system, comprising System of figure 1;

a bus adapted to connect a plurality of devices and an expansion slot (26) adapted to connect devices and (1); an add-in board disposed in the expansion slot, the add-in board comprising a processor (1) comprising (8) connected to (26);

a remote server console device adapted to communicate on the bus, the device having a remote console functionally assist logic structure controlled by the Processor (1, 14) controlled by (8);

wherein the remote console functionality assist logic structure comprises a video encoder for encoding video signals of a video controller associated with the computer system (1, 14) comprises (22) graphic controller - well known to have video encoder/decoder.

Claims 16, 21 Youngblood (figure 1):

A remote server management control system for a computer system [System] of figure 1;

The computer system comprising a bus adapted to connect a plurality of devices and an expansion slot A bus adapted to connect a plurality of devices and an expansion slot (26) adapted to connect devices and (1);

An add-in board disposed in the expansion slot, the add-in board comprising a processor (1) comprising (8) connected to (26);

A remote server console device adapted to communicate on the bus, the device having a remote console functionally

assist logic structure controlled by the processor (1, 14) controlled by (8);

Wherein the remote console functionality assist logic structure comprises a video encoder for encoding video signals of a video controller associated with the computer system. (1, 14) comprises (22) graphic controller - well known to have video encoder/decoder.

Claims 23, 25 Youngblood (figure 1):

A remotely managed computer system, comprising System of figure 1;

A system processor operably coupled to an (110) bus (8, 12) oeratly coupled to (26, 27);

A video controller disposed on the bus to provide video signals to the remotely managed computer system obvious feature of HOST, since the HOST provides video to (22 & 23);

A remote console functionality assist logic structure disposed on the bus, (1, 14);

The logic structure adapted to capture the video signals of the video controller and direct video information to a remote computer system (1, 14) controlled by (812) to provide video signal generated by the (26) to (14, 23);

Wherein the remote console functionality assist logic structure comprises a video encoder for encoding video signals of the video controller (1, 14) comprises (22) graphic controller - well known to have video encoder/decoder.

The difference between the claimed invention and the Youngblood's is that the Youngblood reference does not expressly disclose the claimed limitation regarding add-in board-expansion slot; however, such difference in limitation is commonly practiced or even a standard practice in the art of bus addition/expansion technique/system, such as the Youngblood system and the

> claimed system. The motivation for such practice is to have modular design for easy upgrade, add or expand system. One skill in the art should know the benefit of the modular designed system. The examiner takes official notice on such well known technique and/or common practice. Therefore, it would have been obvious at the time the invention was made to one having ordinary skill in the art to be easily motivated to have or add the add-in board (1, 14) to the Youngblood's system for the well known motivation of easy/modular addition/expansion, for the reason stated above.
>
> As for method claims 30, 33, 38, 40, 45, 47 & 49, the teachings of the apparatus claims 1, 3, 5, 7. 9, 14, 16, 21, 23 & 25 are similarly applied.
>
> Final Office Action, pp. 7-10.

Appellants respectfully traverse these rejections. The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (B.P.A.I. 1979). To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 180 U.S.P.Q. 580 (C.C.P.A. 1974). However, it is not enough to show that all the elements exist in the prior art since a claimed invention composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. *KSR International Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007). It is important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. *Id.* Specifically, there must be some articulated reasoning with a rational underpinning to support a conclusion of obviousness; a conclusory statement will not suffice. *In re Kahn,* 441 F.3d 977, 988 (Fed. Cir. 2006). Indeed, the

factual inquiry determining whether to combine references must be thorough and searching, and it must be based on *objective evidence of record. In re Lee,* 61 U.S.P.Q.2d 1430, 1436 (Fed. Cir. 2002). Therefore, the Examiner must establish, based on objective evidence of record, reasons supporting a conclusion as to the combinability of the references in making an obviousness rejection.

The Examiner's rejection of independent claims 1, 5, 9, 16, 23, 30, 33, 40, and 47 is improper because the rejection fails to establish a *prima facie* case of obviousness.

Improper Use of Official Notice

Prior to discussing each of the claims in detail, Appellants would like the Board to consider the Examiner's improper use of Official Notice. M.P.E.P. § 2144.03 provides that if Appellants adequately traverse an assertion of Official Notice provided by the Examiner, the Examiner *must* provide documentary evidence supporting the assertion in the following Office Action in order to maintain the rejection. Moreover, § 2144.03 provides that if a traverse is inadequate, the Examiner should include an explanation as to why it is inadequate.

By admission of the Examiner, the Youngblood reference fails to disclose the add-in board or expansion slot as recited in the claims. Final Office Action, page 10. In recognizing the deficiencies of Youngblood with respect to this element, the Examiner, in the Office Action mailed on December 4, 2006, took Official Notice of facts outside of the record that the Examiner apparently believed were capable of demonstration as being "well-known" in the art *prior to the priority date of the present application.* In

accordance with M.P.E.P. § 2144.03, Appellants seasonably traversed the Examiner's use of Official Notice in their Response to the Office Action mailed on December 4, 2006. However, in the Final Office Action, the Examiner simply reiterated the same Official Notice argument that he had previously presented in the December 4 Office Action. The Examiner failed to provide any evidence in response to this traverse. Moreover, the Examiner failed to include any explanation as to why the traverse was inadequate. Indeed, the Examiner failed to provide any indication that he had even considered Appellants' traverse. Thus, the Examiner failed to adhere to the M.P.E.P. § 2144.03 requirements regarding Official Notice. Accordingly, Appellants respectfully request that the Board overturn the rejections under 35 U.S.C. § 103(a) of independent claims 1, 5, 9, 16, 23, 30, 33, 40, 47, and all claims depending therefrom, based on the improper use of Official Notice with respect to the aforementioned claims. Further, in the discussion of the claims that follows, Appellants address only the deficiencies of the Youngblood reference due to the Examiner's improper use of Official Notice.

Claim Features of Independent Claims 1, 16, 33, and 47 Omitted from Youngblood

In the instant application, independent claim 1 recites, *inter alia*, "an expansion slot; an expansion board comprising a processor...and a remote console functionality assist logic structure *controlled by the processor* to provide video signals generated by the managed computer system to a remote computer system and *configured to operate independently of a central processing unit (CPU) of the managed computer system.*" (Emphasis added). Independent claim 16 recites, "an add-in board disposed in the

expansion slot, the add-in board comprising a processor" and "a remote console functionality assist logic structure *controlled by the processor* and *configured to operate independently of a central processing unit (CPU) of the computer system.*" (Emphasis added). Independent claim 33 recites, "an add-in board disposed in the expansion slot, the add-in board comprising a processor *configured to operate independently of a central processing unit (CPU) of the computer system*" and "remote server console device comprising a remote console functionality assist logic structure, wherein the operation of the remote server console device is *controlled by the processor.*" (Emphasis added). Independent claim 47 recites, "using a remote console functionality assist logic structure disposed on a bus and *controlled by an Input/Output processor configured to operate independently of a central processing unit (CPU) of the remotely managed computer system.*" (Emphasis added).

In sharp contrast, Youngblood fails to disclose an expansion slot, expansion board or add-in board comprising a processor, remote console functionality assist logic *controlled by a processor*, or remote console functionality assist logic *configured to operate independently of a central processing unit (CPU) of the managed computer system*. Youngblood relates to an apparatus for time-sharing a '386 computer system among multiple users on weaker remote terminal computers. *See* Youngblood, col. 1, lines 10-17; col. 2, lines 56-60. When in operation, the remote computer remains coupled to the host computer such that the remote terminal "appears to *physically reside in a memory unit* hardwired" to the host computer. *Id.*, col. 4, lines 46-47. (Emphasis added).

As would be clearly appreciated by one of ordinary skill in the art, a memory unit hardwired to the host computer is ultimately *controlled by the CPU of the host computer*, and not by a processor contained on an expansion board.

The Examiner has suggested that the host controller (1) and remote terminal (14) constitute remote functionality assist logic which is controlled by host logic controller (8). *See* Final Office Action, page 7, last bullet point. As FIG. 1 plainly indicates, however, a terminal logic controller (12) pertains to the remote terminal (14), while the host logic controller (8) pertains to the host controller (1). *See* Youngblood, FIG. 1. Accordingly, the host logic controller (8) could not reasonably be construed to control both the host controller (1) *and* the remote terminal (14) without completely ignoring the terminal logic controller (12). Even if, assuming *arguendo*, the host logic controller (8) of Youngblood were construed to be a processor, the host logic controller (8) merely facilitates communication between the host CPU (not pictured in FIG. 1) and the remote terminal via host controller (1), such that the host CPU recognizes the remote terminal as physically residing on the host bus (26). *See id.*, FIG. 1; col. 4, line 45, to col. 6, line 31. Furthermore, as evident in FIG. 4A, the host controller remains idle *until receiving an initiation request from the host bus*. *See id.*, FIG. 4A; col. 7, lines 9-33. In sum, the host logic controller (8) could not reasonably be construed to be a processor *controlling* remote functionality assist logic as presented in the instant claims.

Most critically, the apparatus of Youngblood relies on a CPU of the host computer to operate, and is plainly *not configured* to operate independently of a central processing unit (CPU) of the host. Youngblood is specifically directed to mere *communication* between a host CPU and a remote computer and clearly not to remote server *management*, as previously addressed. *Id.* As discussed above, the host controller and host logic controller (8) are controlled by the host CPU. *See id.*, FIG.1; FIG. 4A; col. 7, lines 9-33; col. 4, lines 46-47. The instant claims, however, recite logic *configured to operate independently of a central processing unit (CPU) of the managed computer system*. Because the apparatus of Youngblood is not configured to operate independently of a CPU of the host computer, and in fact, *could not operate without the host CPU*, Youngblood fails to disclose all elements of independent claims 1, 16, 33, and 47.

In view of the remarks set forth above, Appellants respectfully submit that the Examiner has not satisfied his burden of establishing a *prima facie* case that claims 1, 16, 33, and 47 are obvious in view of the cited references. For at least these reasons among others, Appellants respectfully request that the Board overturn the rejections under 35 U.S.C. § 103(a) of independent claims 1, 16, 33, 47, and all claims depending therefrom.

Claim Features of Independent Claims 5, 23, and 30 Omitted from Youngblood

Independent claim 5 recites, "a remote console functionality assist logic structure disposed on the bus and *configured to operate notwithstanding whether a central processing unit (CPU) of the managed computer system malfunctions*, the structure

controlled by the processor." (Emphasis added). Independent claim 23 recites, "a system *processor operably coupled to an Input/Output (I/O) bus*" and "a remote console functionality assist logic structure *disposed on the bus*, the logic structure adapted to capture the video signals of the video controller and direct video information to a remote computer system *notwithstanding whether a central processing unit (CPU) of the remotely managed computer system is functioning properly.*" (Emphases added). Independent claim 30 recites, "*controlling* a remote console functionality assist logic structure with *an Input/Output processor*, the remote console functionality assist logic structure being associated with the computer system and *configured to operate without regard to whether a central processing unit (CPU) of the computer system is malfunctioning.*" (Emphasis added).

As discussed above, Youngblood fails to disclose remote console functionality assist logic controlled by a processor and configured to operate independently of a CPU of the managed computer system. Similarly, Youngblood fails to disclose remote console functionality assist logic *configured to operate notwithstanding whether a central processing unit (CPU) of the managed computer system malfunctions.* Since the apparatus of Youngblood relies on the CPU of the host computer to operate, as discussed above, the entire functionality of the apparatus of Youngblood therefore depends on the proper functioning of the host computer and the host CPU. *See, e.g.*, Youngblood, FIG. 4A; col. 4, line 45, to col. 6, line 31; col. 7, lines 9-33. Youngblood, therefore, fails to disclose a device capable of operating when the host CPU malfunctions, and thus

Youngblood fails to disclose all elements of independent claims 5, 23, and 30. Accordingly, for at least this reason, Appellants respectfully request that the Board overturn the rejections under 35 U.S.C. § 103(a) of independent claims 5, 23, 30, and all claims depending therefrom.

Claim Features of Independent Claim 9 Omitted from Youngblood

Independent claim 9 recites, "an expansion slot...an add-in board disposed in the expansion slot, the add-in board comprising an on-board processor" and "a remote server console device adapted to communicate on the bus *without diverting resources from a system processor of the managed computer system*, the device having a remote console functionality assist logic structure *controlled by the on-board processor*." (Emphasis added).

As discussed above, Youngblood fails to disclose an expansion slot, an add-in board or expansion board, or remote console functionality assist logic controlled by a processor and which operates independently of a CPU of the managed computer system. Similarly, Youngblood fails to disclose remote console functionality assist logic configured to operate *without diverting resources from a system processor of the managed computer system.* The apparatus of Youngblood relies on the CPU of the host computer to operate and, moreover, the communication logic of the apparatus of Youngblood is controlled by the host CPU. *See* Youngblood, FIG. 4A; col. 4, line 45, to col. 6, line 31; col. 7, lines 9-33. Because the host CPU must control and attend to the

apparatus of Youngblood, as previously discussed, the apparatus of Youngblood necessarily diverts resources from the CPU of the host computer system. Youngblood, therefore, fails to disclose a device capable of operating without diverting resources from a system processor of the host computer, and thus fails to disclose all elements of independent claim 9. Accordingly, for at least this reason, Appellants respectfully request that the Board overturn the rejections under 35 U.S.C. § 103(a) of independent claim 9 and all claims depending therefrom.

Claim Features of Independent Claim 40 Omitted from Youngblood

Independent claim 40 recites, *inter alia*, "providing the computer system with a remote console functionality assist logic structure adapted to *monitor activities in the computer system* and provide data to a remote user; and providing a *processor* contained on an add-in board mounted in an expansion slot on a communication bus in the computer system *to control the remote console functionality assist logic.*" (Emphasis added).

As discussed above, Youngblood fails to disclose an expansion slot, an add-in board or expansion board, or remote console functionality assist logic *controlled by a processor* contained on an add-in board mounted in an expansion slot. Similarly, Youngblood further fails to disclose remote console functionality assist logic structure adapted to *monitor activities in the computer system.* The apparatus of Youngblood relies on the CPU of the host computer to operate, and, moreover, the communication logic of

the apparatus of Youngblood is controlled by the host CPU. *See* Youngblood, FIG. 4A; col. 7, lines 9-33. The host CPU must control and attend to the host controller (1) of Youngblood, as previously discussed. *See id.*; FIG. 1; col. 4, line 45, to col. 6, line 31. Youngblood discloses an apparatus adapted to completely join the remote and host computer in such a way that the remote terminal "appears to physically reside in a memory unit hardwired" to the host computer. *Id.*, col. 4, lines 46-47. However, nothing in Youngblood suggests that the remote terminal is *monitoring the activities* of the host computer. Instead, Youngblood describes a system in which the remote terminal generates an interrupt request on the host controller in response to a request from the remote peripheral devices, *independent* of any activity in the host system. *Id.*, col. 6, lines 25-28. Thus, the remote terminal of Youngblood is not *monitoring the activities* of the host computer and providing data to a remote user, but rather interfacing with the host computer in response to external requests, *regardless of the activities being performed by the host computer system.* Youngblood, therefore, fails to disclose a device adapted to monitor activities in the computer system, and thus fails to disclose all elements of independent claim 40. Accordingly, for at least this reason, Appellants respectfully request that the Board overturn the rejections under 35 U.S.C. § 103(a) of independent claim 40 and all claims depending therefrom.

In view of the foregoing remarks, Appellants respectfully assert that the Youngblood reference, taken alone or in combination with the Official Notice, fails to disclose all the elements of the independent claims. As such, Appellants respectfully

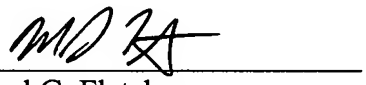
Appellants respectfully request that the Board overturn the rejections under 35 U.S.C. § 103(a) of all independent claims, as well as all dependent claims based on their respective dependencies and for unique matter recited.

Conclusion

Appellants respectfully submit that all pending claims are in condition for allowance. However, if the Examiner or Board wishes to resolve any other issues by way of a telephone conference, the Examiner or Board is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Respectfully submitted,

Date: November 09, 2007



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8. **APPENDIX OF CLAIMS ON APPEAL**

Listing of Claims:

1. A managed computer system, comprising:

an expansion slot;

a bus interconnected with the expansion slot;

an expansion board comprising a processor, the board disposed in the expansion slot; and

a remote console functionality assist logic structure controlled by the processor to provide video signals generated by the managed computer system to a remote computer system and configured to operate independently of a central processing unit (CPU) of the managed computer system.

3. The managed computer system as set forth in claim 1, wherein the remote console functionality assist logic structure comprises a video encoder for encoding video signals transmitted between a video controller and a system processor associated with the managed computer system.

5. A managed computer system, comprising:

an Input/Output (I/O) processor disposed on a bus;

a video controller disposed on the bus; and

a remote console functionality assist logic structure disposed on the bus and configured to operate notwithstanding whether a central processing unit (CPU) of the managed computer system malfunctions, the structure controlled by the processor to provide video signals of the video controller to a remote computer system.

7. The managed computer system as set forth in claim 5, wherein the remote console functionality assist logic structure comprises a video encoder for encoding video signals of the video controller.

9. A managed computer system, comprising:

an expansion slot;

a bus adapted to connect a plurality of devices and the expansion slot;

an add-in board disposed in the expansion slot, the add-in board comprising an on-board processor; and

a remote server console device adapted to communicate on the bus without diverting resources from a system processor of the managed computer system, the remote server console device having a remote console functionality assist logic structure controlled by the on-board processor.

14. The managed computer system as set forth in claim 9, wherein the remote console functionality assist logic structure comprises a video encoder for encoding video signals of a video controller associated with the computer system.

16. A remote server management control system for a computer system, the computer system comprising a bus adapted to connect a plurality of devices and an expansion slot, the remote server management control system comprising:

an add-in board disposed in the expansion slot, the add-in board comprising a processor; and

a remote server console device adapted to communicate on the bus, the device comprising a remote console functionality assist logic structure controlled by the processor and configured to operate independently of a central processing unit (CPU) of the computer system.

21. The remote server management control system as set forth in claim 16, wherein the remote console functionality assist logic structure comprises a video encoder for encoding video signals of a video controller associated with the computer system.

23. A remotely managed computer system, comprising:

a system processor operably coupled to an Input/Output (I/O) bus;

a video controller disposed on the bus to provide video signals to the remotely managed computer system; and

a remote console functionality assist logic structure disposed on the bus, the logic structure adapted to capture the video signals of the video controller and direct video information to a remote computer system notwithstanding whether a system processor of the remotely managed computer system is functioning properly.

25. The remotely managed computer system as set forth in claim 23, wherein the remote console functionality assist logic structure comprises a video encoder for encoding video signals of the video controller.

30. A method of remotely monitoring a computer system, comprising the acts of:

establishing a connection between the computer system and a remote terminal; and

controlling a remote console functionality assist logic structure with an Input/Output processor, the remote console functionality assist logic structure being associated with the computer system and configured to operate without regard to whether a central processing unit (CPU) of the computer system is malfunctioning.

33. A method of providing remote console functionality assist logic in a computer system, the computer system comprising a bus that is adapted to connect a plurality of devices and an expansion slot, the method comprising the acts of:

providing the computer system with an add-in board disposed in the expansion slot, the add-in board comprising a processor configured to operate independently of a central processing unit (CPU) of the computer system; and

providing the computer system with a remote server console device adapted to communicate on the bus, the remote server console device comprising a remote console functionality assist logic structure, wherein the operation of the remote server console device is controlled by the processor.

38. The method as set forth in claim 33, comprising the act of providing the remote console functionality assist logic structure with a video encoder for encoding video signals of a video controller associated with the computer system.

40. A method of providing remote server management control functionality in a computer system, the method comprising the acts of:

providing the computer system with a remote console functionality assist logic structure adapted to monitor activities in the computer system and provide data to a remote user; and

providing a processor contained on an add-in board mounted in an expansion slot on a communication bus in the computer system to control the remote console functionality assist logic.

45. The method as set forth in claim 40, comprising the act of providing the remote console functionality assist logic structure with a video encoder for encoding video signals of a video controller associated with the computer system.

47. A method of transmitting video data between a remotely managed computer system and a remote computer system, comprising the acts of:

using a remote console functionality assist logic structure disposed on a bus and controlled by an Input/Output processor configured to operate independently of a central processing unit (CPU) of the remotely managed computer system to provide video signals of a video controller of the remotely managed computer system to the remote computer system.

49. The method as set forth in claim 47, comprising the act of using a video encoder of the remote console functionality assist logic structure for encoding video signals of the video controller.

9. EVIDENCE APPENDIX

None.

10. RELATED PROCEEDINGS APPENDIX

None.